



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,050	10/23/2003	Eric J. Nesseth	TLR-5128 US	6849
7590 Tipton L. Randall 19371 55th Avenue Chippewa Falls, WI 54729		02/05/2007	EXAMINER PANG, ROGER L	
			ART UNIT 3681	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		02/05/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/691,050

Applicant(s)

NESSETH, ERIC J.

Examiner

Roger L. Pang

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 January 2007.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.  
4a) Of the above claim(s) 4-6, 8, 12, 14 and 17 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-3, 7, 9-11, 13, 15-16, 18 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

The following action is in response to the amendment filed for application 10/691,050 on January 10, 2007.

#### *Election/Restrictions*

Claims 4-6, 8, 12, 14, and 17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on October 13, 2006.

#### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-3, 7, 9-11, 13, 15-16, and 18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant never disclosed that the present invention could only actuate the countershaft if there were no limitations on engine rpm, vehicle speed and frequency of shift cycle during shifting.

The way applicant has claimed the limitation, "the electromechanical shifting apparatus actuating the counter shaft without limitation of engine rpm, vehicle speed and frequency of shift cycle," can be read 1 of 2 ways:

Art Unit: 3681

1) actuating the countershaft will not limit the engine rpm, vehicle speed and frequency of shift cycle. Ota teaches this, as the shifting itself should not “limit” any of those variables. However, applicant never disclosed this interpretation in the specification.

or

2) the apparatus will not function if there is an added control which takes an engine rpm, vehicle speed and frequency of shift cycle into consideration. Ota happens to teach more than the present invention, but that does not mean it cannot function without a additional controls it has disclosed. Also, applicant never disclosed this interpretation in the specification.

Using the previous versions of the claims (or the current version using interpretation 1):

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 7, 10-11, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Ota ‘046. With regard to claim 1, Ota teaches an electromechanical shifting apparatus for a vehicle having an electrical system and a transmission equipped with a counter shaft 10 utilizing partial rotation to shift gears, the shifting apparatus comprising; an actuator assembly including a bidirectional, linear actuator member 3 powered by an electrical motor 1, the actuator assembly secured to a frame of the vehicle (Fig. 2); a shift linkage 7 operatively connecting the bidirectional, linear actuator member to the counter shaft of the vehicle transmission; a wiring

Art Unit: 3681

harness assembly connected to the electrical system of the vehicle, the wiring harness assembly powering the electrical motor of the actuation assembly (Fig. 14/15); and a switch member (Fig. 1) interconnected with the wiring harness, the switch member including first 51 and second actuation 52 positions and an off position (neither pressed), the first actuation position 51 providing a selected current flow direction to the actuator assembly motor to drive the linear actuator member in a first direction and the second actuation position 52 reversing the current flow direction to the actuator assembly motor relative to the selected current flow direction, thereby driving the linear actuator member in a second direction opposite the first direction. With regard to claim 2, Ota teaches the apparatus, wherein the actuator assembly is secured to the vehicle frame by a mounting bracket member (Fig. 2). With regard to claim 3, Ota teaches the apparatus, wherein the bidirectional linear actuator member includes a gear drive 2. With regard to claim 7, Ota teaches the apparatus, wherein the switch member includes a momentary on/off/on momentary switch member (Figs. 1/14/15). With regard to claim 10, please see the limitations of rejected claims 1 and 3 above. With regard to claim 11, please see the limitations of rejected claim 2 above. With regard to claim 13, please see the limitations of rejected claim 7 above.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9, 15-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ota as applied to claims 1-2 and 7 above, and further in view of Cognon'774. With regard to claim 9, Ota teaches the apparatus, but lacks the specific teaching wherein the switch member is mounted to a steering handle bar of the vehicle. Gagnon teaches a vehicle with a similar switching device 12 mounted to a steering handle bar 32 of a vehicle. It would have been obvious to one of ordinary skill at the time of the invention to modify Ota to mount the switching device onto a handle bar to provide a shifter that is ergonomic, easy to operate, and allows the driver to easily shift gears (Col. 1). With regard to claims 15 and 17, please see the limitations of rejected claim 7 above. With regard to claim 16, please see the limitations of rejected claims 1-3 and 9 above.

Using the current versions of the claims (using interpretation 2):

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 7, 10-11, and 13 are rejected under 35 U.S.C. 103(a) as being anticipated by Ota '046 in view of Hembree '442. With regard to claim 1, Ota teaches an electromechanical shifting apparatus for a vehicle having an electrical system and a transmission equipped with a counter shaft 10 utilizing partial rotation to shift gears, the shifting apparatus comprising; an actuator assembly including a bidirectional, linear actuator member 3 powered by an electrical

Art Unit: 3681

motor 1, the actuator assembly secured to a frame of the vehicle (Fig. 2); a shift linkage 7 operatively connecting the bidirectional, linear actuator member to the counter shaft of the vehicle transmission; a wiring harness assembly connected to the electrical system of the vehicle, the wiring harness assembly powering the electrical motor of the actuation assembly (Fig. 14/15); and a switch member (Fig. 1) interconnected with the wiring harness, the switch member including first 51 and second actuation 52 positions and an off position (neither pressed), the first actuation position 51 providing a selected current flow direction to the actuator assembly motor to drive the linear actuator member in a first direction and the second actuation position 52 reversing the current flow direction to the actuator assembly motor relative to the selected current flow direction, thereby driving the linear actuator member in a second direction opposite the first direction. Ota lacks the specific teaching of actuating the countershaft without limitation of engine rpm, vehicle speed and frequency of shift cycle. Hembree teaches a shift apparatus for a transmission, wherein the shift apparatus is actuated without limitation of engine rpm, vehicle speed and frequency of shift cycle. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ota to employ the simplified controls of Hembree in order to provide more user control and reduce cost. With regard to claim 2, Ota teaches the apparatus, wherein the actuator assembly is secured to the vehicle frame by a mounting bracket member (Fig. 2). With regard to claim 3, Ota teaches the apparatus, wherein the bidirectional linear actuator member includes a gear drive 2. With regard to claim 7, Ota teaches the apparatus, wherein the switch member includes a momentary on/off/on momentary switch member (Figs. 1/14/15). With regard to claim 10, please see the limitations of rejected claims 1 and 3 above. With regard to claim 11, please see the limitations

Art Unit: 3681

of rejected claim 2 above. With regard to claim 13, please see the limitations of rejected claim 7 above.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9, 15-16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ota in view of Hembree as applied to claims 1-2 and 7 above, and further in view of Cognon'774. With regard to claim 9, Ota teaches the apparatus, but lacks the specific teaching wherein the switch member is mounted to a steering handle bar of the vehicle. Gagnon teaches a vehicle with a similar switching device 12 mounted to a steering handle bar 32 of a vehicle. It would have been obvious to one of ordinary skill at the time of the invention to modify Ota to mount the switching device onto a handle bar to provide a shifter that is ergonomic, easy to operate, and allows the driver to easily shift gears (Col. 1). With regard to claims 15 and 17, please see the limitations of rejected claim 7 above. With regard to claim 16, please see the limitations of rejected claims 1-3 and 9 above.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

#### FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. The central facsimile number is (571) 273-8300. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

Art Unit: 3681

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (571) 273-8300) on \_\_\_\_\_ (Date)

Typed or printed name of person signing this certificate:

\_\_\_\_\_  
\_\_\_\_\_

(Signature)


If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roger L. Pang whose telephone number is 571-272-7096. The examiner can normally be reached on 5:30am to 4:00pm.

Art Unit: 3681

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Roger L. Pang  
Primary Examiner  
Art Unit 3681

February 1, 2007